## Final Quarterly Report Economic Policy and Agribusiness Development Project (EPAD)

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## **Final Quarterly Report**

# **Economic Policy and Agribusiness Development Project**

**EPAD** 

October 2004

### I. Introduction

Implemented by the Inter-American Institute for Cooperation in Agriculture (IICA), the Economic Policy and Agribusiness Development Project (EPAD) included a policy component and an agribusiness development component.

External changes have occurred since EPAD initiation, linked mainly to the deterioration of the Nicaraguan economy and to negotiations for free trade agreements with Canada and the United States. Negotiations with the latter country were framed under the creation of the US / Central America Free Trade Agreement (CAFTA).

The EPAD Project's first year of operations began in September 2002 and concluded in August 2003. Due to the positive impression caused by results from EPAD I implementation, a second agreement was signed for execution of EPAD II, initiating in September 2003 and concluding in August 2004.

The main objective was to collaborate with the Government of Nicaragua in the implementation of actions leading to: improvements in the investment environment, employment generation, and greater well-being among the population. The project included two components: (i) economic policy, and (ii) agribusiness development.

The **economic policy component** was oriented toward improving the general policy framework in order to: encourage an environment appropriate for the national and international investment process, facilitate implementation of better negotiation and trade policies, and promote the elimination of bottlenecks and the establishment of appropriate sectoral policies.

Through PROVIA, participation by private sector leaders in the areas of agriculture and forestry was strengthened. Leaders united around the highly participatory process involved in formulating the agriculture and forestry development strategy, the forestry policy and the agro-tourism policy.

Contributions in the area of economic and sectoral policy were diverse. EPAD facilitated: preparation and approval of the Fiscal Fairness Law; lobbying and the conciliation of interests around the Forestry Law and formulation of its bylaws, which promote national forestry based on sustainability and profitability; and the design of regulations covering the use and risks of genetically modified organisms (GMOs).

More than 300 events were held to cover policy topics, including workshops, seminars, meetings, trade fairs, training events and presentations. In these, over ten thousand people shared and received ideas, training, proposals, opportunities and other general resources.

With respect to support for the development of strategies, programs, projects and studies, the following were especially important: (i) the strategy proposal for private sector agricultural development in Nicaragua; (ii) the national strategy for the development of organic farming by producers' organizations, and the private sector agro-tourism development strategy; (iii) contributions to the National Development Plan under specific topics; (iv) the Seed Program; (v) the Glass of Milk Program that benefits over 300,000 students; (vi) the National Program for Cattle Ranching Conversion; (vii) numerous studies covering a broad range of topics, including products, markets, prices, electric energy, protective tariffs, policies, credit, technology, chains, territories, policy instruments, etc.

The **agribusiness component** was oriented toward creating a base for the competitive growth of product lines attractive to national, regional and international investment. In this respect, EPAD II proposed two target areas:

- 1) extension of essential experiences from EPAD I; and
- 2) consolidation of a portfolio of agribusinesses.

The main objective of this component was to provide support toward critical strategic points and business goals, ensuring that essential abilities and a critical mass of capacities were combined in such a way as to mobilize investments and generate sustainable benefits. The extension of essential EPAD experiences focused on two areas of activity:

- a) Expansion of the base of market capacities. Here, the goal was to connect producers with the growing global market. This was one of EPAD's most sensitive and essential mechanisms. The idea was to provide professional, low-cost agribusiness training and to promote the introduction of successful practices.
- b) Development of competitive technologies and a support system for their dissemination. Given the lack of development in these areas, EPAD imported new technologies that could achieve a certain initial success. At the beginning, these technologies did not enjoy systematic conviction or trust among producers and investors, particularly with respect to non-

traditional products. Therefore, there was a need to build rapidly, from the existing investment, a new generation of technologies and dissemination mechanisms based on a broad scale of needs.

The component involving consolidation of a portfolio of businesses included two sub-components:

- a) Promotion of events stimulating investment in Nicaraguan agro-industry in order to facilitate interaction between business leaders at national and international levels through different events. Such exchanges contributed to the internationalization of best practices in different areas, such as commercialization, post-harvest technologies, farming practices, etc. These forums also provided feedback to EPAD components, improving conditions and helping to give a new image to Nicaragua, thus strengthening investment.
- b) Construction of sustainable local institutions, for which activities were developed with EPAD beneficiary organizations, encouraging institutional agreements that would promote sustainability after project finalization.

In its design, EPAD faced time and budget limitations that made it impossible to gain a process-oriented vision. With limited resources and with timeframes restricted to one-year periods, it was not possible to carry out long-term planning in order to generate real processes. Although annual extensions ensured EPAD continuation, their approval was uncertain until well into the implementation of formerly approved addendums.

The agricultural products with which IICA has worked have shown very positive dynamics over the past five years. Production of these crops has experienced significant increases in volume and relatively sustained or growing export values. Production in the field is also where the greatest changes in technological management have been seen.

Many of these changes have been stimulated by market integration processes. Although many such processes are still incomplete and have yet to be consolidated, they have generated changes in productive practices in order to adapt to consumer demands.

In this sense, the influence of marketing businesses (whether private companies or cooperative initiatives) has been decisive in changing the patterns of productive practices. Although it must be noted that these changes are gradual and for many reasons may block the processes, significant differentiation has been seen per social sector and geographic

zone in the intensity of changes made to productive practices and technologies.

The most conclusive aspect of this process toward integration in local or external markets is that it increases effective demand for production services (credit, technical assistance, training), and the processes of technological change generated under these conditions are more extensive and sustainable. In this sense, the IICA strategy of insertion into economic activities with a certain level of expansion and with certain levels of market insertion achieved positive and concrete results, as illustrated in this report.

Finally, it must be emphasized that the success of this project can be attributed to the appropriate selection of policy and agribusiness initiatives and to the excellent project team. EPAD success was also due to the integration and synergy achieved between the policy and agribusiness components, which worked through numerous alliances with producers' organizations, NGOs, and education and research institutions. In addition, success resulted from the coordination and joint efforts implemented with the private sector and government of Nicaragua.

## II. Agribusiness Development

#### II-a AGRICULTURAL / AQUACULTURAL AGRIBUSINESS

With 21 months of experience, this IICA/EPAD Project component established a series of agricultural and aquacultural programs, consolidated under the following principles:

- 1) Defined and existing market demand;
- 2) Economically sustainable activities;
- 3) Technology adapted to productive capacity.

The IICA/EPAD Project initiated as an agribusiness program. It evolved by developing commercial opportunities through the use and introduction of validation, production and post-harvest technologies. Finally, it developed integral trade programs for products arising through agriculture and its activities related to the market approach.

Although EPAD was an eminently commercial project, IICA recognized the need to establish a balance between commerce and the environment. Therefore, with USAID's consent, follow-up was provided to EIA and to IPM programs for vegetables. Carried out with Zamorano, these efforts provided training to partners and projects linked to USAID on the rational use and management of pesticides, thus formalizing the regulations over these materials within agricultural programs implemented in Nicaragua.

With a US\$ 670,000 budget, the agricultural / aquacultural agribusiness component helped to generate sales of US\$ 2,614,442.95 during the period from January to September 2004. This results in a project cost / benefit ratio of US\$ 3.90 for every dollar invested.

These figures do not include activities implemented during the last semester, sales from which will not take place until after project finalization in September 2004. However, estimates of these sales represent an additional US\$ 863,780. With these new totals, EPAD's final cost / benefit ratio will reach an estimated US\$ 5.15 for every dollar invested in the agricultural / aquacultural component.

## IICA/EPAD PROGRAM CUMULATIVE SALES, JANUARY TO SEPTEMBER 2004

PROGRAM	CROPS	TOTAL SALES
Vegetable Program	Tomato (table and industrial), sweet corn, peppers (sweet and green), onion (white and yellow), cabbage, lettuce (6 varieties), okra, broccoli, parsley, melon, watermelon, small onion, beet, potato, mango	\$1,191,420.00
Organic Program	Cacao, various vegetables, cardamom	\$258,455.95
Fruits and Musaceae Program	Plantain, fruit trees, guineo banana	\$617,886.00
Aquaculture Program	Live fish, fish fry	\$38,765.00
Grains and Oils Program	Beans (red and black), sesame	\$507,916.00
TOTAL		\$2,614,442.95

Following the project's business development objectives, the signing of three important purchase / sale contracts between producers and investors was sought during the July-September period. Related production activities began during the same quarter:

- 1) Onion for Exportation: Supported by IICA/EPAD and CRS, this program involved the planting of 123 manzanas of onion for exportation. IICA promoted the signing of a purchase / sale contract between partner producers and the US company Lionheart.
- 2) Sesame for Exportation: This initiated with a purchase offer by the export company INVASA to sell sesame at a fixed price to Japan. In coordination with Save the Children and the ARAS Foundation, IICA/EPAD agreed to establish a program for the planting of 600 manzanas of this crop.
- 3) **Broom Sorghum**: A contract was signed by a PROVIA producer —with participation by two cooperatives of small farmers— and a broom company owned by Adolfo Montiel for the planting of 40 manzanas of broom sorghum at a set price. The final objective is to export finished brooms to the United States.

In addition to projects carried out with the two DAP partners, EPAD provided technical assistance on production and management aspects to other USAID partners: ADRA (tomato project); Project Concern International (on IPM and biological controls for the potato program); and CRS (vegetable production program.)

The US Peace Corps assigned volunteers to some of EPAD's productive projects. In this way, Peace Corps technicians provided training to EPAD technicians on methodologies to establish community banks within communities targeted by both institutions.

Similarly, support for the production and fair trade of organic cacao continued. To date, sales in 2004 have surpassed those achieved in 2003, and a 25% increase is estimated. Plantain commercialization will increase with the entrance of the rainy season. It is estimated that sales will reach US\$ 210,810 during the quarter from July to September.

Vegetable and fruit production programs continued as part of the activities toward coffee zone diversification and under the technical assistance program implemented with the Israeli government through MASHAV. This latter effort focused on the validation and introduction of new technologies,

especially in the National Agro-plasticulture Reference Center located on the National Autonomous University of Nicaragua (UNAN) campus in León.

Adjusting to the realities of each region, the project promoted varied forms of commercialization. For example, with beneficiaries in the RAAN (such as ASOGARO, the municipal government of Rosita and different local organizations), three campesino farming fairs were held where producers from the zone sold produce in an organized manner. The fair in September resulted in sales of US\$ 6,576.25, leading to total annual sales of US\$ 22,665.

#### BENEFICIARIES PER GEOGRAPHIC ZONE AND CROP

		# of Beneficiaries			
Region	Crop	Direct	Indirect	Total	
RAAN	Cacao	752	3,760	4,512	
Nicaragua	Tilapia	20	100	120	
Matagalpa	Mungo bean, vegetable seed, vegetables and fruits	337	605	942	
León	Plantain, onion and vegetables	252	240	492	
Granada	Aromatic plants	166	1,075	1,241	
Rivas	Beekeeping, plantain and <i>musaceae</i>	363	275	638	
Managua	Beekeeping, vegetables, tomato, plantain and <i>musaceae</i>	267	365	632	
Chinandega	Plantain, vegetables, tomato and squash	97	81	178	
Estelí	Sweet corn, vegetables	238	181	419	
Nueva Segovia	Coffee	431	1,450	1,881	
Carazo	Vegetables, tomato	114	42	156	
	Vegetables, onion, cardamom and				
Jinotega TOTAL	diversification	1,595 <b>4,632</b>	5,618 <b>13,792</b>	7,213 <b>18,424</b>	

#### A. Vegetable Program

This program closed the July-September quarter with sales of US\$ 200,528 and cumulative sales for the entire project period of US\$ 1,191,420.

With vast experience and almost national coverage, the vegetable component of the IICA/EPAD Project directed its efforts toward the development of profitable, marketable and high-quality production in order to compete in any market. The three most significant crops for export to the US market have been: three varieties of squash, onions for exportation and okra. The most important crops in terms of local and regional sales have been: onion, tomato and lettuce, which generated the greatest incomes for producers throughout the year.

In the last quarter, as well as during its entire duration, the EPAD Project provided technical assistance for the production, management and commercialization of 16 vegetables produced under organic and conventional systems in eight departments of Nicaragua.

Together with Aldea Global, 12 manzanas of potatoes were established during the period from July to September. This crop will be harvested in late September and early October. Gross incomes of US\$ 41,250 are estimated, with investment costs of US\$ 24,000.

IICA/EPAD has been at the vanguard of agri-plasticulture production and management technologies, carrying out training activities with the Israeli government's technical assistance program (MASHAV) and establishing its leadership in the management of systems complementary to greenhouse use, such as: dripping irrigation, fertilization / irrigation and the management of indeterminate varieties of tomato.

Between lat August and early September, planting of onion for exportation began with the establishment of the first crop areas (40 manzanas.) These efforts must continue until 123 manzanas are sewn, as stipulated in the purchase / sale contract signed between producers and Lionheart of Pompano Beach, Florida.

In addition, IICA/EPAD began to implement productive programs in zones also targeted by CARE for road system improvement. Technical assistance was provided to supervise farming activities in the sector of La Campana in Chontales Department. Similarly, a support program was established in the zone of Namanjí, in the area of the road to La Concordia — a zone that has received assistance since 2003.

Always aware of the need to diversify production, potato validation plots were established in Sébaco Valley. Seeds commonly planted at over 1000 meters above sea level were used in order to introduce additional crops in

the zone. With Cooperativa Nebliselva in Jinotega, commercial table tomato crops were planted, using indeterminate Israeli varieties never before planted in Nicaragua.

#### B. Cacao Program (Organic / Fair Price and Conventional)

From January to September 2004, cacao sales of US\$ 258,455.95 were achieved by Cooperativa Cacaonica, a group supported by the EPAD Project. This amount is equivalent to 92% of sales from the period from January to December 2003. To the date of this report (with one quarter remaining in 2004), it is estimated that this year's harvest will be 25 to 30 percent greater than last year's, and therefore sales will surpass the US\$ 279.094 achieved in 2003.

During the quarter from July to September 2004, some 42,726 kilograms of cacao were commercialized at US\$ 0.75 per pound, for a total of US\$ 71,001. Although production has continued to increase, demand still surpasses supply by a rate of six to one. Due to an increase in national and regional demand, most of the cacao produced through the project has remained in Nicaragua or Costa Rica, receiving prices similar to or higher than those of the world market.

For this reason, from the start IICA/EPAD worked with Pro-Mundo Humano and Cooperativa Cacaonica to increase and improve production by improving plantations, using grafted materials, and providing training in frequent harvest and pruning, and cacao grafting. As a result, 352 farmers received training in eight courses imparted by project technicians. A total of 200 producers have planted improved materials on their farms, and these efforts will continue through the work of Pro-Mundo Humano.

Although it was clear that the full demand could not be met, IICA/EPAD always attempted to maximize benefits for producers. For this reason, during the last quarter a trip was taken to El Salvador to establish commercial contacts with companies that purchase cacao from Waslala via intermediaries. Contact was also made on this trip with the Salvadoran Agricultural Exchange, which is interested in offering cacao within its commodities system.

The final activity planned in this area was a visit by the Rainforest Alliance to this zone in order to establish a technical cooperation program for cacao and to initiate a certification program for cacao plantations. This will translate into better prices in certain market niches.

#### C. Coffee Program

Support programs in the area of coffee trade were managed under an agreement with ACEN and under the promotional program "Cafés de Nicaragua: The Essence of Our People." The promotional plan continued through the financing of two activities:

- 1) Financing of the *Cafés de Nicaragua* stand at the Specialty Coffee Association (SCAA) Fair in Atlanta in which, for the first time, all sectors involved in coffee production in Nicaragua participated.
- 2) Co-financing of the Cup of Excellence 2004, through promotional and logistical support for national and international cuppers. This event has given a special place to Nicaraguan coffees.

IICA/EPAD supported the electronic auction in which winning coffees from the Cup of Excellence were commercialized, receiving prices well above normal market prices. This helped to establish the quality of the high-ranking national and organic coffees.

The Fourth Annual Ramacafe International Coffee Conference was held on September 8, 9 and 10. More than 460 coffee producers from the region attended to hear presentations made by 41 specialists and panelists from throughout the hemisphere. IICA/EPAD support was requested for this event, and using MOU and ACEN funds, the project financed the presence of four specialists on the topic of diversification.

#### D. Fruits, Musaceae and Tubers Program

Based on USAID instructions to work on the diversification of coffee areas in the departments of Matagalpa and Jinotega, IICA/EPAD decided to introduce germplasm banks and to initiate commercial fruit and timber tree plantations.

A total of 12,416 fruit trees and 24,084 timber trees were introduced on 56 demonstration plots and two production centers (nurseries). Parcels in Jinotega, along with Cooperativa El Gorrión and Serviteca, received approximately 25,000 fruit and timber trees, also establishing a sapling production center. In Matagalpa the project worked with Cooperativa Solidaridad, PAC/World Relief and Cooperativa Jorge Salazar, planting 10,600 trees and establishing a development center.

Seven species of fruit trees were introduced, mainly including citrus fruits and avocado. Citrus species included six varieties of orange, three varieties of mandarin, red grapefruit and lemon. Eight varieties of avocado were introduced. Fourteen species of timber trees were introduced, including especially teca, eucalyptus and canelo.

On a lesser scale, the project also promoted diversification and the introduction of fruit and timber trees in other zones such as Sébaco, Apompuá, Las Playitas, Nandaime and the Domitila Reserve in Rivas. In the case of Domitila Reserve, 500 cacao trees were planted.

Although this activity will not generate incomes in the short term, it is considered by the coffee sector to be one of the most adaptable and acceptable forms of diversification. Eventually, fruit trees will provide additional incomes, as well as shade and food for workers. In the longer term, timber trees will also generate incomes.

One of the greatest income generators for project beneficiaries involved the commercialization of *musaceae* (plantains and guineo bananas.) Sales, which were mostly local, reached a total of US\$ 617,886 in the period from January to September 2004 (including sales of US\$ 210,810 for this July-September quarter.)

The project focused on the two large plantain areas (Rivas and Chinandega), combining efforts with the technical assistance provided by FHIA consultant Leonel Castillo. Technical assistance was also provided in the zones of León, Nandaime, Dipilto, Nueva Segovia and in the departments of Jinotega and Matagalpa, where materials were introduced to establish germplasm banks. Ten thousand seeds of large (gigante) and small (cuerno enano) plantains were used, along with varieties FHIA-20 and -21.

The cashew program initiated by ARAP/Chemonics/USAID and followed up on by IICA/EPAD has begun to show results through the evaluation of trees and plantations. Of 700 trees evaluated, 50 were pre-selected and used to establish a nursery to function as a bank for cashew buds. In a joint effort with PROVIA, cashew expert Ian Duncan was invited to Nicaragua last quarter and accompanied IICA/EPAD on visits to plantations, approving selections and recommending new criteria for final selection. Producers achieved initial local sales of 105 hundredweight at a price of US\$ 14 / cwt. of unshelled cashew.

Also during the quarter from July to September, IICA/EPAD began to work with yucca in the zone of Nandaime, delivering 72 loads of yucca shoots for planting on the plots of small farmers from the Nochari Association. In order to advance technologically, a request was made to the National Agrarian University (UNA) for production of quequisque and malanga seedlings from tissue cultivation, thereby ensuring the planting of pest- and disease-free seed in Jinotega.

#### E. Aquaculture Program

This year, the aquaculture program was oriented toward establishing a productive base through private industry. This approach focused on the management and production of fish fry, resulting in sales of US\$ 38,765 to the only private company that purchases this product at the national level. Similarly, the project assisted business leaders in Chinandega and Managua with the establishment of a tilapia production program. In order to reinforce these efforts, the project participated in an International Tilapia Symposium in Honduras, to which Nicaraguan producers interested in this product were invited.

Working under the perspective of coffee diversification in the northern zone, the project evaluated the possibility of establishing trout in appropriate climates and water temperatures in Matagalpa (El Quetzal and Hammonia Haciendas.) Because there is no clear governmental policy with respect to the introduction and management of non-endemic species, this effort was left in the hands of producers, who were contacted by suppliers in Costa Rica.

#### F. Grain Trade – Sesame and Broom Sorghum Program

This was the first year in which the project worked to promote grain production, carrying out activities under the coffee zone diversification program through the signing of an MOU with Aldea Global, an NGO in Jinotega. Among the reasons for entering into this activity was the existence of a purchase / sale contract for black beans. If each hundredweight is sold at US\$ 25.00, it is estimated that sales will total US\$ 189,000.

Other activities in the area of grains (beans) were carried out as a complement to the technical assistance for vegetable crops in cases where farmers also had areas planted with beans. This technical assistance was provided by Peace Corps groups. During the high-altitude onion program, targeted farms sold US\$ 12,500 of beans at C\$ 500 (córdobas) per hundredweight.

A total of 9,180 hundredweight of beans were processed by Cooperativa Multisectorial Conor 3-80, resulting in incomes of US\$ 4,512. This cooperative also achieved US\$ 3,035 in direct sales.

In addition, as part of the support for private enterprise, machinery was provided for the processing of beans. To date, 14,223.55 hundredweight of red, black and Estelí 90 beans have been processed, resulting in sales of US\$ 303,069.06. The grand total of sales of this crop is US\$ 323,116.

Although not included in the original work plan, two purchase / sale contracts were signed in western Nicaragua:

- i) Sesame. A purchase / sale contract was signed between producers, a commercializing entity and two organizations that provide support and technical assistance to the project. The contract stipulates a set price of US\$ 35 per hundredweight, with an area of 600 manzanas to be planted. Planting will conclude in September. Estimated sales from this project total US\$ 126,000. IICA/EPAD supported Cooperativa Del Campo with its participation in Biofach Fair 2004, where it was able to sell seven containers of sesame for a total of US\$ 184,800.
- ii) Broom Sorghum. Although included in the 2003 work plan, no efforts were made in this area because the buyer never decided to carry out the purchase of this crop. In early 2004, a relationship was established with Adolfo Montiel, involving the production of brooms for exportation and the promotion of sorghum planting among small farmers in the zone of Nandayosi. This agribusiness, which also participates in the Exportation Platform, recognizes the need to ensure prime materials of appropriate quality and volume to supply international demands. For this reason, and through PROVIA, a contract for the production of 40 manzanas of broom sorghum was signed.

## **Livestock Agribusiness**

#### A. BENEFICIARIES

Targeted organizations include eight cooperatives; three ranching associations; a confederation of ranchers (CONAGAN) in alliance with a rendering plant (Nuevo Carnic) and an NGO (CLUSA) for the production of organic meat; an association of small producers (departmental branch of

the National Union of Farmers and Ranchers – UNAG); an agricultural producers' foundation (PROVIA); and three companies formed as corporations. Together, these 17 organizations cover a total of 1,988 direct beneficiaries, with an estimated 7,272 indirect beneficiaries. Different livestock projects cover an estimated total area of influence of 234,189 manzanas (an average of 118 manzanas per beneficiary) and 163,600 head of cattle (an average of 82 head per beneficiary.)

LIVESTOCK AGRIBUSINESS SUB-COMPONENT – SUMMARY OF BENEFICIARIES											
			Ave	rage	Avera	ge					
	Benefi	Beneficiaries Farm O		Organization	Head						
	Direct	Indirect*	(mz)	Head	(mz)						
LIVESTOCK PROGRAM	364	1,456	229	184	83,199	50,000					
DAIRY PROGRAM											
- Dairy Products and Markets	1,012	4,048	96	83	97,320	83,600					
- Coffee Diversification	612	1,768	70	49	53,670	30,000					
TOTAL - DAIRY PROGRAM	1,624	5,816	93	70	150,990	113,600					
TOTAL – LIVESTOCK											
AGRIBUSINESS	1,988	7,272	118	82	234,189	163,600					

Support activities were provided to these organizations in almost all territories of the country: the North Atlantic Autonomous Region (RAAN) and the departments of León, Chinandega, Managua, Rivas, Granada, Boaco, Chontales, Matagalpa and Jinotega. The Tepeyac and Flor de Pino cooperatives of San Rafael del Norte were incorporated into the program during the final quarter of this year.

#### A.1 Livestock Program

From October 2003 to September 2004, IICA/EPAD's livestock agribusiness component provided support for commercialization and technical aspects to small and medium producers' organizations covered under the Livestock Program. The table below shows program beneficiaries:

	SUB - COMPONENTE: AGRO NEGOCIOS GANADEROS											
	PROGRAMA GANADERO - LIVESTOCK PROGRAM Tamaño Superf.											
	Nombre de		Tipo de		No. de	benef.	Promedio	Prom.				
Rubro **	Organización	Region	Organización	Clase	Direc.	Indirec.*	Finca (mz)	Org.(mz)				
D.P	a) PROVIA	Varios	Fundación	Fincas	36	144	58,0	2.088				
С	b) COOP:SALINA GRANDI	Varios	Cooperativa	Fincas	28	112	1,3	35				
D.P	c) UNAG - RIVAS	Rivas	Unión	Fincas	6	24	46,0	276				
D.P y C	d) ASOGARO	Rosita, RAAN	Asociación	Fincas	85	340	141,0	11.985				
D.P	e) COOP. STA. ANA	Chinandega	Cooperativa	Fincas	65	260	259,0	16.835				
D.P y C	f) AGROPCSA/LA CHINA	Matagalpa	Empr. asociativa	Fincas	44	176	45,0	1.980				
C.O	g) CLUSA/CONAG./N.C.	Varios	Coop., Emp. Indiv	Fincas	100	400	500,0	50.000				
TOTAL LIVESTOCK PROGRAM 364 1.4								83.199				
* Familiares de los Beneficiarios Directos estimados en 4 por cabeza de familia.												
** D.P =	Doble Propósito; C = Cerdos	s; C.O. = Carne	Orgánica.									

During these twelve months, the program provided services to 364 direct beneficiaries grouped in seven organizations, covering an area of 83,199 manzanas. It is estimated that indirect beneficiaries totaled 1,456, not including those benefiting from activities linked to commerce, transport, etc.

Due to the increase in farms in the Organic Meat Program (most of which are medium and large in size), the average size of farms covered was 228.6 manzanas. One hundred farms were covered in the Organic Meat Program, with an approximate total of 50,000 manzanas and 33,000 head of cattle. The total herd of the seven organizations numbered approximately 50,000.

Beneficiaries of the different groupings were found mainly in Nicaragua's Pacific, central and northeastern regions and involved in dual-purpose ranching activities (as well as a few cases of specialized dairy operations.) In certain cases (La China, ASOGARO and Cooperativa de Salinas Grande), farms also carried out pig production activities, and therefore the program provided support for the production and marketing of this species.

#### A.2 Dairy Program

IICA/EPAD promoted the strengthening of CENILAC, a marketing enterprise that unites six dairy processing cooperatives. Beneficiary farmers totaled approximately 1,012, with some 97,320 manzanas of land and an average of 96 manzanas per farm. Beneficiaries included partners and non-partners of the cooperatives and businesses, who provide dairy to the processing plants. The number of cattle involved was an estimated 83,600 head.

SUB - COMPONENTE: AGRO NEGOCIOS GANADEROS											
PROGRAMA LECHE - CENILAC - DAIRY PROGRAM Tamaño Superf.											
Nombre de		Tipo de		No. de	benef.	Promedio	Prom.				
Organización	Region	Organización	Clase	Direc.	Indirec.*	Finca (mz)	Org.(mz)				
Desarrollo de Mercados y	Promoción de	Productos Láct	eos								
a) ALIANZA NOVA	Chontales	Sociedad Anóni	Procesadora	33	132	135	4.455				
b) COOP. RIOS DE LECHE	Chontales	Cooperativa	Procesadora	185	740	89	16.465				
c) COOP. MASIGUITO	Boaco	Cooperativa	Procesadora	361	1.444	110	39.710				
d) COOP. S. FRANCISCO	Boaco	Cooperativa	Procesadora	359	1.436	78	28.002				
e) COOP. NICARAO	Rivas	Cooperativa	Procesadora	52	208	96	4.992				
f) LACTEOS STA. MARTA	Jinotega	Empresa Famili	Procesadora	22	88	168	3.696				
ENILAC				1.012	4.048	96	97.320				

The Fondeagro/Cenilac Coffee Zone Diversification Project, involving the ranchers' associations in Matagalpa (Asociación de Ganaderos de Matagalpa – ASOGAMAT) and Jinotega (Asociación de Ganaderos de Jinotega – ASOGAJIN) and the cooperatives Tepeyac and Flor de Pino in San Rafael del Norte, Jinotega, covered 612 beneficiaries with 53,670 manzanas (an average of 70 manzanas per farm), as illustrated in the following table:

	PROGRAMA LECHE- DIVERSIFICACIÓN CAFETALERA - FONDEAGRO/CENILAC											
							Tamaño	Superf.				
	Nombre de		Tipo de		No. de	benef.	Promedio	Prom.				
Rubro **	Organización	Region	Organización	Clase	Direc.	Indirec.*	Finca (mz)	Org.(mz)				
D.P	a) ASOGAJI	Jinotega	Asociación	Fincas	70	280	80	5.600				
D.P	b) ASOGAMAT	Matagalpa	Asociación	Fincas	210	840	130	27.300				
D.P	c) COOP. TEPEYAC	Jinotega	Cooperativa	Fincas	162	648	60	9.720				
D.P	d) COOP. FLOR DE PINO	Jinotega	Cooperativa	Fincas	170	680	65	11.050				
TOTAL D	<b>IVERSIFICACION CAFETA</b>	LERA			612	1.768	70	53.670				
* Familia	* Familiares de los Beneficiarios Directos estimados en 4 por cabeza de familia.											
** D.P = Doble Propósito												
TOTAL P	TOTAL PROGRAMA LECHERO 1.624 5.816 93 150.990											

#### A.3 Smaller Livestock Projects

In the third quarter of this year, the Association of Sheep and Goat Breeders (Asociación de Criadores de Ovinos y Caprinos – PROVICA) was formed to encourage pertinent activities. In June, a consultant specializing in smaller livestock was contracted, promoting activities involving training, market management, commercialization, technical assistance and consulting during the final four months of program implementation.

These activities covered four productive organizations, with 52 direct beneficiaries as demonstrated in the table below:

ORGANIZATION	LOCATION	TYPE	DIRECT	INDIRECT
			BENEFICIARIES	BENEFICIARIES
San Ramon	Diriamba	Cooperative	18	72
Comunidad Unida	San Fco. (MGA)	Cooperative	15	60
Ceprodel	Abangasca	Development	12	48
		Association		
PROVIA	Several	Foundation	7	28
TOTAL			52	208

Within these activities, and in accordance with the terms of reference for the consultancy, five reference farms were established for training events and demonstrations.

FARMS CURRENTLY BEING REGISTERED

FARM	OWNER	# ANIMALS	LOCATION
La Caridad	Jorge Vaughan	50	Jinotepe
La Esperanza	Edgar Lacayo	142	Veracruz, Managua
El Carmen	Marcelo Mayorga	200	León
San. Fco. State	Tomas Vaughan	300	Jinotepe
El Olvido	Juan F. Gutiérrez	150	Cuajachillo
TOTAL		842	

Support activities for small pig farmers took place in the communities of La China, Salinas Grande and Asogaro, covering aspects related to feeding and commercialization. The program also supported goat producers in the municipalities of Larreynaga and Malpaisillo with training on goat milk processing.

#### B. Results (Sales)

During the period from October 1, 2003 to September 30, 2004, the project continued to consolidate commercialization activities in local and external markets. Such activities were initiated in the IICA/EPAD Program last year, through the Livestock and Dairy programs. During the last quarter (July - September) sheep commercialization activities were added.

#### **B.1 Livestock Program**

As demonstrated in the following table, meat and dairy incomes generated by these organizations totaled C\$ 9,797.032 for the year.

	Milk Sales		Cattle Sales		Pig Sales		Other Incomes	
PROJECT	Lts	C\$	Unit	Š	Unit	C\$	Unit	C\$
Provia	327,285	1,232,631	305	1,857,026	•	-	•	-
Agropcsa	121,531	414,109	58	291,100	•	-	•	-
La China	=	•		•	243	116,547	•	14,310
Pequeños Ganaderos Rivas	90,952	332,498	97	380,340	•	-	•	-
Cooperativa Santa Ana	285,092	1,447,875	178	841,605	•	-	•	99,392
Asogaro	380,271	1,355,421	121	986,583	120	110,837	-	139,608
Cooperativa Salinas Grandes	-	-	-	-	38	15,200	-	1,950
Sub-total	1,205,130	4,782,533	759	4,356,655	401	242,584	•	255,260
Organic Meat - Meat Sales	·			160,000		·		
Total	1,205,130	4,782,533	759	4,516,655	401	242,584	•	255,260

Sales of beef from cattle raised on organic pastures were small because commercialization was suspended in the last quarter until packaging and labeling become available and supermarket placement has been achieved, as stipulated in United States NOP standards. The supplying of national supermarkets will begin again in late September or early October, and exportation will probably reinitiate in December 2004 or January 2005.

Sales of beef from cattle raised on organic pastures totaled C\$ 160,000 this quarter, resulting in annual sales of C\$ 9,797,032 in the local market.

Of the farms assisted with dry-season feeding, eleven planted 115 manzanas of fodder sorghum, corn for ensilage or cut fodder for direct consumption. Of the materials harvested this year, close to 2,000 cubic meters of silage were prepared using cinch silos, trench silos and stack silos.

For the current rainy season, 182 manzanas of southern fodder sorghum have been planted. The number of farms taking part in these activities increased from 11 to 18. Each will apply different modalities of ensilage, covering a volume of over 2,700 cubic meters of silage materials. Farms that have not yet begun to produce silage use alternative systems (hay and cut pasture with irrigation) for dry-season feeding.

It must be emphasized that the farms receiving program assistance supplement their feeding programs with complete mineral solutions throughout the year. Combined with feeding supplements in the dry season, this has led to improvements in conception and birth rates among their herds.

#### **B.2 Dairy Program**

Without including cattle sales or local sales, this period's external sales of dairy products totaled 9.9 million pounds, with a total value of US\$ 11.7 million. Of these exports, 81.6% went to El Salvador and the remaining 18.4% to the United States.

**EXPORTS PER PLANT - OCTOBER 2003 TO SEPTEMBER 2004** 

PLANT		EXPORTE ese / wee		Vol. Oct Sept.	Average Price	Value Oct. – Sept.
	El Salvador	USA	TOTAL	Lbs	US\$/Lb	US\$
San Fco. De Asís	53,000	10,000	63,000	3,276,000	1.15	3,767,400
Masiguito	57,000		57,000	2,964,000	1.15	3,408,600
Alianza Nova	1,500		1,500	78,000	1.15	89,700
Santo Tomás	35,000		35,000	1,820,000	1.15	2,093,000
Lactosam	5,000	7,000	12,000	624,000	1.15	717,600
Nicarao	5,219	206	5,426	282,139	1.15	324,460
El Triunfo		18,182	18,182	872,726	1.52	1,326,544
TOTAL	156,719	35,388	192,108	9,916,865		11,727,304

Percentage Participation

81.6% 18.4%

CENILAC consolidated as a commercializing entity recognized at national and international levels. It took business trips to the United States and El Salvador, where safe and high-quality cheeses were delivered.

With 25 producers, the project covered an area of 5,820 manzanas and a herd of 3,871 cattle. On the twelve farms selected for demonstrative

purposes, 16 permanent jobs and 72 temporary positions were created with the implementation of calf breeding, silage preparation and double-milking management. Incomes generated by the twelve demonstration farms totaled US\$ 259,155 from the sale of milk, US\$ 208,695 from the sale of young bulls, US\$ 16,149 from the sale of calves after weaning, US\$ 33,540 from the sale of discard cattle and US\$ 37,763 from the sale of breeders.

The table below illustrates sales reported by the Fondeagro/Cenilac Project during the corresponding period:

Concept	Milk	Young Bulls	Calves	Cows	Bulls	Total
	(It)	(unit)	(unit )	(unit )	(unit)	
Units	1,390,800	560	130	120	38	
Córdobas	4,172,400	3,360,000	260,000	540,00	608,00	8,940,400
				0	0	
Dollars	259,155	208,696	16,149	33,540	37,764	555,304
Exch. Rate =16.1 x 1						

The companies, cooperatives and individual producers that participated in the Livestock and Dairy programs during this period sold almost C\$ 19 million and exported US\$ 11,727,300 to El Salvador and the United States.

#### **B.3 Smaller Livestock Projects**

As a result of activities carried out by the consultant hired for four months to stimulate sheep production, the following results were achieved:

Market	# Animals	Amount *		Destination
		C\$	US\$	
Local (C\$)	229	107,554		Chontales, Rama , Masaya
External (US\$)	80		2,958	Costa Rica
Total	309	107,554	2,958	

<sup>\*</sup> C\$ = sales in local markets; US\$ = sales to Costa Rica.

These sales have noticeably stimulated sheep production activities. Numerous producers are currently seeking assistance to organize and modernize their sheep production systems.

#### **ACTIVITIES IMPLEMENTED**

#### a) Livestock Program

Activities implemented under this program were diverse and oriented toward increasing sales of goods produced by beneficiaries. Support for ranching activities has mainly been provided through the program's technical assistance for producers' associations. Various aspects were covered, including primary production and product commercialization.

Support for primary production focused on ensuring stability in production and feeding during the summer, a season when pasture is scarce and production usually fluctuates significantly because of the lack of irrigation systems. Work strategies were designed for each zone and each farm, based on the needs and herd size of each producer. Solutions were prepared in accordance with the sizes and quantities of animals that had to be maintained for determined periods.

With assistance provided by specialists from the Israeli Technical Mission (MASHAV), program activities in the fourth quarter included silage tests using various sub-products. These led to improved exploitation of conserved fodder. In addition, new techniques were established for the replacement breeding of dairy cows, resulting in milk production at earlier ages than before.

With support from other agricultural disciplines, reforestation and silvopastoral systems were developed. Some of these innovations will see results only in the medium and long terms.

Contacts were established between producers and buyers for the placement of young bulls. Assistance was provided to small dairy processing plants for the diversification of products, resulting in improvements to their presence in local markets (with a vision toward their entry into markets outside of the Central American region.)

With respect to training and dissemination, presentations were held for producers in Masaya, Jinotepe, Carazo, San Rafael del Norte, Jinotega, Nueva Guinea, Río San Juan and Matagalpa. Other activities included field trips, seminars, workshops and studies (such as that carried out by the Pig Producers' Association of Nicaragua for the design of a rendering plant for pigs and other smaller species.)

The most relevant activities of the Organic Meat Program this period included: the technical assistance provided by Tom Harding, an expert consultant in organic meat production and commercialization; contacts made with meat producer, buyer and distributor Jamie Nichols; and contacts made with kosher meat buyer and certifier Philip Flamer. These individuals visited the Nuevo Carnic rendering plant and farms in process of being certified, verifying the possibilities of initiating exportations of 100% organic and kosher meats.

In August 2004, five inspectors from International Agricultural Organization (*Organización Internacional Agropecuaria* – OIA) visited Nicaragua to inspect farms with organic pastures certified in 2003, as well as to inspect new farms with possibilities of entering the program. They pre-selected 146 farms implementing organic management plans and expect to certify approximately 100 of these farms. They also re-inspected the Nuevo Carnic rendering plant. The inspected farms cover approximately 62,679 manzanas and host some 33,000 head of cattle. Based on NOP standards, 40 farms were pre-qualified to produce 100% organic meat.

Within this same program, five training and dissemination events were held on: the current program situation, possibilities to export kosher meats, and training for National Agrarian University students to provide assistance to farms targeted by the program for two months. In addition, in a joint effort with CATIE, two courses were offered on the use of homeopathic medicines in the Organic Meat Program.

#### b) Dairy Program

This included two projects: the Market Development and Dairy Promotion Project and the Fodeagro/Cenilac Coffee Diversification Project. This period, technical assistance was provided at the farm level on aspects related to feeding. Support was also offered for the association of different enterprises and for business travel.

With respect to training and dissemination, the program implemented activities such as courses and seminars, dairy product fairs, practical seminars and demonstrations, work meetings with producers, and follow-up visits to farms that adopted new technologies. The following table summarizes results achieved through these efforts:

#### TRAINING SESSIONS AND EVENTS - SUMMARY

ACTIVITY	QUANTITY	FARM / SITE	ZONE
Seminars	95 Producers		
- Fodder Conservation	35 Producers	Apanás	Jinotega
- Use of Mineral Salts	35 Producers	Apanás	Jinotega
- Fodder Conservation	25 Producers	La Libertad	Chontales
Visits to Farms			
- Follow-up to Application of	6 visits	Malacatoya	Granada
Technologies			
- Technology Demonstrations	6 visits	Juigalpa	Chontales
- Supervision of Recommendations	3 visits	La Libertad	Chontales
Cheese Tasting	19 cheese types	Sto. Tomas	Chontales
Cheese Tasting	19 cheese types	Chamber of Commerce	Managua
Cheese Tasting	19 cheese types	Intercontinental Hotel	Managua
Field Trips	15 trips, with	Selva Negra, S. Rafael	Chontales,
	participation by 350	del Norte, Matagalpa,	Matagalpa,
	producers	Jinotega, Juigalpa, La	Jinotega
		Libertad	
Certification for Exportation to Guatemala	4 plants		
Holding of Fair at start of farm cycle	1	Sébaco	Matagalpa
Workshops	6	Matiguás, S. Rafael del	Matagalpa,
		Norte, Selva Negra,	Jinotega,
		Juigalpa	Chontales
Courses on Fabrication of Dairy Products	3 with participation by 70 production plant workers	La Libertad, León	Chontales, León

With respect to support and technical assistance for commercialization, contacts were made with cheese buyers from the United States, Mexico and Guatemala. A business tour was organized to the United States, on which CENILAC sent a representative to establish contacts with buyers in Miami, Washington and Houston. With economic and logistical support from the IICA/EPAD Project, four CENILAC plants obtained certification to export to Guatemala (LACTOSAM, Masiguito, San Fco de Asís, Nicarao), and the first shipments of cheese were made to this country. In addition, interviews were held with representatives of the USDA, FDA and US Customs Department, who explained their ways of working with cheese imports and provided very helpful recommendations, offering their support whenever requested through corresponding channels.

The production of Morolique cheese was tested, with unpasteurized milk aged for 60 days and without refrigeration. In a follow-up visit, it was seen that the cheese goes through a satisfactory aging process. Laboratory analyses showed that, in principle, it is possible to produce this type of cheese as long as it is processed with totally clean milk.

One important aspect of the support provided during this stage was the organization of cheese production plants grouped within CENILAC. Efforts

were made to prepare and review a project to be presented to IDR, UESA and IICA, seeking financing for investment of approximately US\$ 1.3 million in the construction of installations at the Boaco junction. In this respect, IDR has approved the project; it is now up to the CENILAC plants to obtain counterpart funds of approximately 40% of the investment total.

The IICA/EPAD Project supported CENILAC in the preparation of a strategic plan for modernization of the dairy production chain within the plants' areas of influence, including modernization of farms and the plants and a commercialization strategy.

CENILAC initiated operations as an organization with legal standing. It installed its offices in CENAMEGE buildings. It named a General Manager and is in the process of hiring the rest of the team and of installing a laboratory financed by IDR's PRPR Program. Together with CENILAC directors and management, documentation required to implement IICA/EPAD support was prepared, so that the plants receive equipment and inputs leading to technological progress in terms of quality and safety.

With the formation of CENILAC, great progress has been made in terms of quality for the exportation of dairy products. It is no longer strange to hear plants discussing joint exportation with products of standard quality. In addition, the six CENILAC plants are interested in integration with Lácteos El Bosque, Lácteos La Montaña, El Triunfo, La Completa, Lácteos El Socorro, etc.

The project also supported the dairy association in the presentation of proposals to promote activities. These efforts included the following:

- Participation in the preparation of a proposal to be presented to the Japanese government, seeking economic support for the eleven best cheese production plants in the country in order to produce with export quality.
- ✓ In response to demands of the Ranchers' Association of Matagalpa, and by common agreement with the IDR delegation in this zone, support was provided for the preparation of a document seeking installation of centers for dairy storage, clean milking and business modernization.
- In support of Tepeyac Cooperative in San Rafael del Norte, a document was prepared for the installation of a storage and assistance center for local producers. The objective is to ensure clean milking and the application of technologies appropriate for local farm conditions.

- Efforts were carried out with CENILAC plants toward the preparation of a proposal to be presented to MECD regarding the plants' participation in the "Glass of Milk" school feeding program, providing dairy products such as cheese, fresh milk, milk-based cajeta, etc.
- Support for two studies on the establishment of milk storage centers for the municipalities of Matagalpa and San Rafael del Norte. Construction will be financed by the Rural Development Institute (IDR). The centers will be operational in 2005, thus helping to resolve milk commercialization problems.

		EVENTS IN COFF	1	
TYPE OF	LOCATION	#	TOPIC	DATE
EVENT		PARTICIPANTS		
Seminar	S. Rafael	120	Feeding system,	09/07
	Norte		management, breeding	
Seminar	Matiguas	38	Feeding system, 21/0	
	_		management, breeding	
Field Day	S. Rafael	35	Feeding system,	22/07
	Norte		management, breeding	
Field Day	Juigalpa	35	Feeding system,	27/07
·			management, breeding	
Field Day	Jinotega	45	Use of waste products,	31/07
			the environment	
Field Day	La Libertad	20	Feeding system,	05/08
			management, breeding	
Field Day	Matagalpa	17	Feeding system,	11/08
			management, breeding	
Field Day	S. Rafael	24	Feeding system,	24/08
	Norte		management, breeding	
Field Day	S. Rafael	28	Feeding system,	25/08
	Norte		management, breeding	
Workshop	S. Rafael	45	Feeding system,	01/09
_	Norte		management, breeding	
TOTAL		407		

#### c) Smaller Livestock Projects

The following activities, arising from PROVIA Foundation initiatives, were implemented under this project:

Formulation of a project proposal for development of the sheep / goat production sector. The general objective of this project proposal was to develop a formal and stable market for sheep and goat production. Achievement of this goal required efforts to meet secondary objectives: a) less rudimentary management of existing herds, and b) creation of a processing infrastructure that solves this problem and serves to meet demands.

Producers were provided with assistance in the selection of male and female breeders, use of pharmaceutical and biological products in sheep and goat production, coding systems and technical records.

During this period, relations were established with non-governmental organizations and state institutions that work in the area of sheep and goat production, including:

- UNAG (Chinandega).
- CEPRODEL (León).
- Cooperativa IAGUEI (Chinandega).
- PAI MAGFOR Project (Managua).
- ICIDRI UPOLI.
- Foundation for Health and Sustainable Development (Fundación para la Salud y el Desarrollo Sostenible FUSADES).
- Cooperativa Comunidad Unidad de San Francisco Libre.
- EBEN-EZER.
- UCC (Department of Agrarian Sciences).

The table below lists training events implemented during the period covered by this report:

TOPIC	LOCATION	PARTICIPATING	# PARTICIPANTS
		INSTITUTION	
I. Assistance with Sheep	IICA	UCC Ag. Sc. Dept.	24
and Goats			
Sheep Production and	El Viejo	UNAG	16
Reproduction			
Sheep Management and	S. Fco. Libre	Comunidad Unida	36
Costs of Production			
Races, Management,	Expica	UCC Ag. Sc. Dept.	138

Diseases			
Sheep Production and	IICA	UCC Ag. Sc. Dept.	20
Reproduction			
TOTAL			234
PARTICIPANTS			

## III. Exportation Platforms

Within its agribusiness component, the IICA/EPAD Project included three sub-components: (i) Exportation Platforms Program; (ii) Access to International Markets; and (iii) Agro-industry Support.

The *Exportation Platforms Program* was implemented with a methodology that initiated in IICA offices in Central America and was directed toward Canadian markets. In the period from October 2003 to September 2004, IICA executed the Second Exportation Platform, this time oriented toward the market in Los Angeles, California.

The objective of this methodology was to introduce topics that would result in successful exportation to business leaders who had never exported before. Eight training modules were planned in the first stage. During the second stage, a process was carried out to validate products in target markets. The process concluded with participation in a trade mission.

The basic objective of the *Access to International Markets* sub-component was to diversify target markets for businesses with export experience, providing them with opportunities to exhibit their products in international fairs. Samples were sent to contacts, and support was provided for the dissemination of pertinent information regarding laws, standards and regulations in each destination country.

The objective of the *Agro-industry Support* sub-component was to support 16 small agro-industrial businesses grouped within the Nicaraguan Fruit and Vegetable Agro-industrial Conglomerate (*Conglomerado Nicaragüense Agroindustrial de Frutas y Vegetales* – CONAFRUVE) through: training; the opening of international markets; improvement of production capacities; and compliance with quality, labeling and food safety standards.

The following is a detailed account of activities implemented and achievements made during this report period:

#### A. EXPORTATION PLATFORMS

This period, development of the **Second Exportation Platform: Creating Exporters** was initiated, focusing on the market in Los Angeles, California.

Through the local dailies *La Prensa* and *El Nuevo Diario*, interested business leaders were invited to participate. In response, 40 queries were received, and application forms were sent out accordingly. In the end, 21 companies completed the applications. In order to determine their respective exportation capacities and potentials, these companies were visited. Finally, 14 companies were selected, and 13 of them participated in the program.

Training consisted of eight modules: 1. Preparing to Export; 2. Business Plan for Exportation; 3. Evaluating Export Opportunities; 4. How to Adapt Products for Target Markets; 5. How to Close a Deal; 6. Forms of Payment; 7. How to Prepare Your Own Business Plan; 8. Executing Your Business Plan.

In order to implement these modules, support was received from IICA specialists from offices in San Jose, Costa Rica; San Salvador, El Salvador; and Miami, Florida.

As a complement to the training sessions, IICA/EPAD invited speakers to share their expertise in different topics and specialties. Speakers included: experts in international trade, potatoes and dairy products; onion exporters / importers; the representative of a shipping company that provides logistical services; a renowned contracts attorney; a professor of finance; the representative of a commercial bank to discuss international payment instruments; the representative of a company that provides exportation insurance; and the representative of Almacén de Depósito y Fiscal (bonded fiscal warehouse) who discussed details of the financing mechanism for businesses in the program.

The project also contracted an international consultant to carry out a validation process for products involved in the program. The consultant began by visiting all companies and processing plants to interview managers about their preferences and the contracts they hoped to obtain through the trade mission to Los Angeles.

As part of the validation process, the project gathered and sent product samples to Los Angeles, so that the consultant could present them during visits and interviews with potential buyers interested in Nicaraguan products.

Within this process, a benchmarking exercise was carried out with similar competing products in targeted markets. Samples of such products were purchased so that the Nicaraguan companies could make comparisons in terms of presentation, quality and price.

To conclude the process, the consultant returned to Nicaragua to meet with each of the businesses, presenting individual, confidential reports with the results of respective validation activities implemented in Los Angeles.

In general, results were promising. According to the report: "...the city of Los Angeles has the highest population of Hispanic descent and, therefore, is a most desirable target city for Nicaraguan exports." The Hispanic population in Los Angeles totals approximately five million. This is a market with buying power, willing to pay for nostalgic or ethnic products.

Since Latin Food Expo was held on October 3-5 (a period not included under project coverage), it was not possible to participate, as planned, with a stand to exhibit products of companies that participated in the Second Exportation Platform. Instead, the project decided to conclude with a trade mission, organizing a series of meetings with business leaders interested in Nicaraguan products.

All of these efforts contributed to the proposed objective of increasing the exportation of Nicaraguan products. To date, these results cannot be measured statistically; however, because of the validation process executed and the market conditions found, the project is very optimistic that this objective will be met successfully.

#### B. Access to International Markets

The project participated in Biofach 2004 in Germany, the world's largest fair focusing on organic products. At this event, Cooperativa Del Campo (which includes more than 3,200 members) made contacts for the sale of seven containers of sesame for US\$ 184,800. In addition, 21 contacts were obtained with businesses interested in purchasing organic products from Nicaragua. These contacts were disseminated via the weekly electronic bulletin distributed by IICA to numerous people. Many of these recipients

then contacted IICA to obtain complete information and to initiate procedures with the interested companies.

The project noted that, because of market growth, organic farming is an area that should be promoted. However, producers lack required certification and technical assistance.

Samples of cardamom, rose of Jamaica, lemon grass and coffee were sent to potential buyers in Europe and the United States, thus supporting producers in the opening of international markets.

In coordination with EPAD's livestock agribusiness component, a trade mission composed of representatives of plants within the CENILAC Group (Comercial Exportadora Nicaragüense de Lácteos, S.A.), which includes Alianza Nova, Camoapán, Lácteos Santa Martha, Masigüito R.L., Ríos de Leche, San Francisco, Nicarao and Inversiones S.A., traveled to the United States. The purpose of this mission was to hold interviews with commercial contacts previously identified in the market study carried out by CHEMONICS in Miami, Florida; Washington, D.C. and Houston, Texas.

During the trip, participants visited representatives of US Customs, FDA and USDA, as well as suppliers in the areas of packing, labeling, machinery, laboratories and logistics. This tour was very positive; agribusiness leaders were able to discuss the rejection of cheese shipments within the prior several months, as well as how CENILAC would take actions to ensure that subsequent shipments comply with quality standards required by the US market.

Another important activity this quarter involved participation in the First Regional Fair of Hotel and Restaurant Suppliers, held at Convento San Francisco in Granada. Kola Shaler Industrial, S.A.; Nuevo Carnic, S.A.; APRONOT; La Matagalpa; Café Premium Segovia, S.A.; TROPIFRUTA and the Nochari Association were among the companies with exhibitions. The fair was attended by delegates of hotels in Central America and Panama, who expressed positive opinions about Nicaraguan products and made contacts with participating companies.

IICA/EPAD was also present at the Agro-industrial Fair held to coincide with the launching of the agricultural cycle in Sébaco. Participating dairy sector companies included Lácteos Santa Marta, Alianza Nova, Santo Tomás and San Francisco de Asís.

With support from the ICA office in El Salvador, IICA/EPAD organized the participation of a group of cashew producers in a seminar imparted by two Brazilian experts in Nicaragua, covering the improvement of appropriate plantation management capacities, post-harvest management, agroindustry, and marketing of cashew products and byproducts.

Important collaboration was achieved with respect to EXPO APENN 2004. A series of conferences was organized for June 25, for which eight speakers were invited to discuss different topics of interest to producers, including: "Dairy Product Production and Trade," "The US and Central American Plantain Market," "Post-harvest Plantain Management," "Sheep Meat: National Market," "Tomato Production Using the Greenhouse System," "Use of Bio-digesters and Earthworms," "Rainforest Alliance Activities in Latin America," "Plasticulture," "Use of Bio-digesters," and "Legal Framework for Forestry." In addition, IICA/EPAD contributed to business round tables, bringing buyers from Holland, the United States and Central America. It also participated in the stands of three companies at the Second Exportation Platform (Kola Shaler Industrial, S.A.; Comercial Industrial de Norte, S.A.; and Escobas y Cepillos Industriales, S.A.) and in the IICA and PROVIA stands.

In coordination with IICA offices in Miami, IICA/EPAD implemented a trade mission to the city of Miami, Florida. Participants included business leaders who participated in the Second Exportation Platform: Cía. La Mar Dulce, CINSA and Kola Shaler; along with several from the First Exportation Platform: CAPRESSA, Fábrica de Alimentos La Matagalpa, Agropecuaria LAFISE and the chip manufacturer Inversiones BC. These business leaders followed a busy schedule of meetings with distributors, importers, and owners of ethnic stores and supermarkets.

In addition, IICA/EPAD organized the participation of four speakers from Brazil, Mexico, Honduras and Guatemala in Ramacafé International Coffee Conference 2004, held in coordination with the Specialty Coffees Association of Nicaragua (Asociación de Cafés Especiales de Nicaragua – ACEN.)

#### C. DEVELOPMENT OF A SUCCESSFUL AGRO-INDUSTRY

The project signed a Memorandum of Understanding with the Nicaraguan Fruit and Vegetable Agro-industrial Conglomerate (Conglomerado Nicaragüense Agroindustrial de Frutas y Vegetales - CONAFRUVE), to provide the conglomerate's members with technical assistance on good manufacturing practices and training on methods of synchronized production, food technologies, etc.

As part of this MOU, technical assistance was provided on good manufacturing practices to be implemented in six CONAFRUVE companies, along with an introduction to good manufacturing practices within the rest of the companies in the conglomerate. In addition, the project and a group from CONAFRUVE participated in the Agritrade Fair held in Guatemala on March 24-27. Here, commercial contacts were made through business round tables and through direct initiatives by participating business leaders.

Through faculty members of "El Zamorano" Pan-American School of Agriculture, IICA/EPAD provided training on food processing during the third week of July. Participating in this course were twelve delegates from CONAFRUVE companies. In addition, the project supported efforts by CONAFRUVE member Corona El Rey to obtain Registration and Free Sale certificates (issued by the Ministry of Health) for seven products.

Technical assistance was provided to the company La Matagalpa for the redesign of its plant, including the movement of materials and equipment for the productive process. The study served as a base for receiving support from MIFIC's Technological Innovation Program, which provides 60% financing as a counterpart to the company's 40%. In this way, a US\$ 1,200 consultancy led to the procurement of US\$ 30,000 in funds from the MIFIC program.

As part of its support for agro-industry, the project supported Agropecuaria Lafise with bean-processing machinery. To date, a total of 14,223.55 hundredweight of red, black and Estelí 90 beans have been processed, for total sales of US\$ 303,069.06.

The following member companies of the Nicaraguan Fruit and Vegetable Agro-industrial Conglomerate (CONAFRUVE) participated in training and technical assistance on *good manufacturing practices*:

CASESA Granada

2. APRONOT Jinotepe, Carazo

3. CAPRESA Diriamba, Carazo

4. LA MATAGALPA Matagalpa

5. NAISA Managua

6. TROPIFRUTA Nueva Guinea, R.A.A.S.

7. PALMEROLA Cárdenas, Rivas

8. VINICOLA GRADUADOS Managua

9. CAPRI Managua

10. CORONA EL REY Managua

11. LA CASA DE LAS CAJETAS Diriomo, Granada

12. NOCHARIS Nandaime, Granada

13. CHOROTEGA Nandaime, Granada

14. COFRUTARI Rivas

15. OSTUMA FARMS Santa Ma de Ostuma, Jinotega

16. SUPREMO Managua

17. DOÑA TINA Managua

#### Results:

a. Companies participating in training on *Food Processes and Technologies* at "El Zamorano" Pan-American School of Agriculture achieved the following:

- Accumulation of knowledge about possibilities to increase aggregate value of products;
- Diversification of ideas in order to exploit waste products from agroindustrial processes;
- Extension of knowledge about different equipment used in different types of processes;
- Processing alternatives;
- Elimination of doubts about processing techniques, use of additives, quality problems, product defects, etc.;
- Plant distribution;
- Familiarization with different types of production control registries;
- Observation of the application of good manufacturing practices and standard health systems required under the HACCP system.
- b. As a result of the consultation on good manufacturing practices, the following significant changes occurred within the respective companies:
  - The company **CASESA** (**Granada**) carried out investments in order to improve its overall infrastructure, knowledge and product quality,

- especially with respect to its leading product: guayaba jam, enabling the company to improve sales.
- The company NAISA (Managua) will acquire new equipment, enabling the following:
  - a) Improved installed production capacity;
  - b) Infrastructure improvements;
  - c) Improvement in work conditions;
  - d) Exploitation of byproducts, such as fruit juices which will be used to manufacture natural fruit drinks.
  - e) New product lines, such as snack foods.
- Exploiting prime materials from the agricultural sector, the company COFRUTARI (Rivas) initiated product diversification with new lines of food items: papaya sweets and plantain chips. Currently, this company is seeking financing for the installation of a cold room that will allow it to store fruit pulp.
- The company **Fábrica de Alimentos LA MATAGALPA (Matagalpa)** acquired new equipment with modern technology, thus improving installed capacity, processes and products.
- The company **OSTUMA FARMS** (Jinotega) acquired a new packing plant, increasing the aggregate value of its products.
- The company VINICOLA GAITAN (Managua) is improving its infrastructure and labeling. Exploiting certain byproducts, it plans to produce vinegar.
- The company LA CASA DE LAS CAJETAS (Diriomo) improved its infrastructure and acquired new equipment. It is standardizing processes, diversifying product lines, and improving the packaging and quality of its products. In addition, it is achieving a high level of organization, discipline and cleanliness in and around the plant.
- The company INDUSTRIAS SUPREMO (Managua) made investments, reorganized, modernized its infrastructure and improved the packaging of its products.
- The company **CAPRI** (Managua) is improving its infrastructure, acquiring new equipment and optimizing its production processes.
- The company **APRONOT** (San Marcos) is making infrastructural and organizational changes throughout the plant.

- The **NOCHARI ASSOCIATION (Nandaime)** is seeking financing for the construction of a plant that ensures adequate conditions for the processing of its product lines.
- Personnel from the company **TROPIFRUTA** (Nueva Guinea) are motivated and integrated into the ordering, discipline and cleanliness of the plant, achieving impressive levels of organization, with all procedures in writing.
- The company DOÑA TINA (Managua) has demonstrated great interest in making changes in its infrastructure, organization and equipment.

In order to exploit and sustain knowledge and know-how, a permanent study circle was formed with agribusiness leaders.

Because of support provided by the EPAD Project, CONAFRUVE has set a foundation upon which to improve product quality and the organization of its member companies. However, the group will need to continue with its training in order to follow through on efforts it has initiated.

# IV. Policy

#### MACROECONOMIC POLICY

Upon finalization of the one-year implementation period of Phase II of the EPAD Project, the following achievements had been made through support for the Secretariat on Presidential Coordination and Strategies (SECEP):

#### POLICY TO EXTEND RURAL FINANCIAL SERVICES

# 1. Approval and Initiation of the Project to Extend Financial Services

Within the work plan agreed upon with the World Bank, the project was formulated and presented to the World Bank Board of Directors in April 2004. It was approved in May 2004. It is expected that the project will enter into effect in October 2004, and that implementation will begin in January 2005.

The main activities included a review and updating of the Project Appraisal Document (PAD), negotiations with related institutions (such as SIBOIF, FNI and UCRESEP), support for the negotiation process with the World Bank, and participation in six preparatory missions with World Bank staff, including the appraisal mission.

During the last quarter, the project began to complete conditions for effectiveness: final preparation of the operations manual, approval of the legal agreement by the National Assembly, and initiation of coordinating unit operations.

#### 2. Formulation of the Law of Microfinance Associations

The Microfinance Law was approved by the National Assembly in January 2004. The EPAD Project supported the international consultant that the Nicaraguan government requested from the World Bank to review and propose alternatives to this law. Consensus was attained between the government, trade associations, National Assembly representatives and donors with respect to some 20 reforms, which will be incorporated as motions in the plenary discussion of the law. It is expected that these motions will be incorporated in October 2004.

# 3. Support for the Program to Strengthen the Property Guarantee Framework

Support in this area was based on the technical assistance agreement with IDB. The designated consultant participated in the preparation of a presidential decree for implementation of the project (SECEP is the executing unit of these reforms) and in actions to launch operations of the project coordinating unit. To date, terms of reference have been prepared for the international bidding process through which a consulting firm will be selected to execute components of the program to reform the property guarantee framework.

# 4. Proposed Trust Law

Terms of reference were prepared so that a consulting firm, together with SECEP, can prepare a proposed Trust Law. It is expected that SECEP will implement these terms of reference during the fourth quarter of 2005. SECEP is evaluating sources of financing for this proposed law. SECEP is expected to have identified said source and to implement the prepared terms of reference in order to proceed with bidding.

#### 5. Multi-sectoral Investment Institution

Upon request by SECEP, support was provided to FNI for the formulation of a strategy to transform this institution into a multi-sectoral mixed-capital bank. Specifically, the following were prepared: various alternatives for reforms to FNI's organic law; new modes of active operations; financial restructuring in order to adopt the institution's capital to its new activities; and elements of an implementation plan, mainly involving a program to strengthen institutional capacity that focuses on extending FNI infrastructure and training its personnel.

The legal and organizational changes were presented to the FNI Board of Directors and to the economic cabinet during this last quarter. It is hoped that the Board will soon decide on implementation of the proposed reforms.

### 2. POLICY FOR THE ORDERING OF PROPERTIES

Upon request by the Presidency, the project helped to identify elements of a new strategy for the ordering of properties. In coordination with the Ministry of the Treasury and Public Credit (MHCP) and SECEP, EPAD prepared a proposal for reforms to the institutional framework, which was presented to respective Ministers and other state institutions. Subsequently, elements of a reform plan were prepared, including the most relevant actions to be implemented in order to resolve property problems in the country. Specifically, programs and instruments were identified —along with their matrices of goals, objectives, actions and costs— for incorporation into the National Development Plan.

Also in this area, EPAD provided support for the property project executed by MHCP with World Bank funds, particularly with respect to: reformulation of the project's operating plan for 2004, a plan to issue titles over indigenous areas in Bosawas, and the land regulation process initiated in Chinandega through cadastral purging. In addition, EPAD supported project acquisition processes, reformulation of the monitoring system, project follow-up and the formulation of a land policy.

# 6. National Development Plan (PND)

EPAD supported the preparation, discussion, review of and agreement on several topics included in the National Development Plan, including property, financing, financial service extension, and rural development. The project participated in workshops held to reach agreements between

productive and social sectors and departmental development committees. Property and financial service matrices were prepared.

#### SECTORAL POLICY

# 1. Trade Policy

The objective was to advise and assist the Trade Department of the Ministry of Agriculture and Forestry (MAGFOR) with respect to international trade negotiations and the administration of treaties in areas related to the agriculture and forestry sector.

Results achieved this period included MAGFOR's active and prepared presence in forums before and during the above-mentioned negotiations, in Treaty Administration Committees, and in effective follow-up to market access problems caused by non-tariff trade barriers or by ignorance of existing trade advantages. Efforts were made toward institutional strengthening with respect to organizational, planning and monitoring aspects.

# Agriculture Sector Trade Negotiations before the WTO

Efforts were made to review and notify the WTO about internal assistance granted by Nicaragua to its agricultural sector, benefits that are exempt from reduction commitments because they are contained within the "green compartment." Similarly, analyses were carried out, and data, positions and criteria sent to the Nicaraguan mission to the WTO (Geneva). The project monitored and disseminated information of interest about advances of the Doha Development Program and other multilateral negotiations.

Nicaragua's agricultural trade policy was corrected according to commitments made at the Doha Round.

#### **Customs Union**

Specialist consultants participated in the National Tariff Group formed in follow-up to preparations for the Central American Customs Union and, specifically, in compliance with the mandate issued at the Meeting of Vice-ministers for Economic Integration held on March 31, 2004. National Tariff Group efforts have focused on discussing and preparing national negotiating proposals for establishment of a common external tariff for Central America. As a result of the presentation of these proposals to Central American

countries, as well as the analysis and discussion of each of the regulations, the standardization of 1,066 positions (82.19%) has been achieved, with the standardization of 231 positions (17.81%) still pending.

Together with MIFIC, consultants also participated in the preparation of the proposal for standardization of norms of origin between Central America and Mexico. This proposal was presented to the private sector, and agreements have been achieved with respect to norms of origin of processed meat products (50% of meat with regional content value in order to establish a balance between the industrial sector and pig farmers), coffee (65% in origin, increasing up to 100% in origin), and sugar (100% in origin for beverages with high sugar content.)

The topic of standardization of the Administration Mechanism for Food and Agricultural Input Donations was discussed. Initially, a report was prepared on the behavior of incomes in the local markets of said donations, main users and the administration mechanism. A national proposal of general principles for formulation of the standardized mechanism was written and presented at the Fifth Meeting of Agricultural Negotiators of Central America. With these guidelines, a national proposal on the mechanism was prepared and subsequently presented at the Seventh Meeting of Agricultural Negotiators of Central America. Preparation of a proposal for the regional-level administration of donations is underway.

Also with respect to Customs Union negotiations, support was provided to MAGFOR in terms of the national proposal about main points that must be included in the Quota Administration Mechanism. Such points included the establishment of a single tariff quota for the entire Customs Union and a single administration mechanism, and that COMIECO must approve any increases in tariff quotas required by a country. If COMIECO does not issue an individual verdict or resolution in this respect within 30 days, the respective increase will be considered approved and the country may apply it immediately.

### **CAFTA**

Technical support for MAGFOR in these negotiations covered the following:

Analysis of data on production, importation from the United States and exportation to the United States.

- ✓ Study and analysis of the United States Department of Agriculture (USDA) strategic plan for the 2002 2007 period.
- Legal review of each of the dispositions in the chapter on Agriculture and National Treatment of the Treaty.
- Review of Tariff Exemption Lists.
- Preparation of the official MAGFOR document that includes a technical analysis of positive and negative impacts for the agricultural sector that may result from this treaty, as well as efforts that MAGFOR is developing and will develop in the short, medium and long terms to strengthen positive impacts and minimize negative impacts.
- ▼ The coordinator of inter-institutional work teams (MIFIC, MAGFOR and IICA) implemented throughout 2004.
- A process of presentations in the territories about the results of CAFTA and other trade negotiations. In total, five CAFTA presentations were held (at MAGFOR, for producers' groups, for FUNICA members, and in the city of Bluefields.)
- Inclusion of notes about advances in trade negotiations on MAGFOR's electronic portal, and the distribution of such reports to different associations and groupings within the national agricultural private sector.
- Procedures for the publication of a manual on results of the latest negotiations with respect to agricultural aspects.

## **Preparation of Other Negotiations**

The MAGFOR negotiating team has been formed for upcoming FTA negotiations between Nicaragua and Taiwan. Progress has been made in terms of logistical preparations and coordination with the MIFIC Department of Trade Negotiations and the private sector, as well as in the analysis of current trade relations between Taiwan and Nicaragua.

Efforts were made toward preparation for future negotiations with the European Union in the search for and research and analysis of information about European regulations over food traceability and animal welfare.

With respect to FTA negotiations with Canada, the project supported a discussion of the negotiation strategy for the tenth round of negotiations in Ottawa, Canada.

# Trade Agreement Administration

Within the framework of organizing the administration of free trade agreements, EPAD financed a public and private sector group's trip to Mexico to exchange experiences with Mexican government officials and private sector representatives with respect to the exploitation of such agreements.

# Nicaragua - Mexico Free Trade Agreement

Trade between Mexico and Nicaragua was evaluated, after five years under a free trade agreement. This evaluation verified that at the start, there was a trend toward growth of Nicaragua's agricultural exports. These exports have decreased over the past two years, however, due especially to the significant drop in peanut and cattle. As a result of this evaluation, agricultural sector topics were prepared for coverage during the Mexican president's next official visit to Nicaragua.

Another important topic in this area was the support provided to resolve problems related to the use of quotas for beef and cattle on the hoof in this free trade agreement. An analysis was carried out of internal procedures, decrees and situations (in Nicaragua) that may be causing problems in terms of Mexico's position of refusing to modify its internal regulations.

# Nicaragua – Dominican Republic Free Trade Agreement

EPAD supported the formation of an inter-institutional work team (MAGFOR / MIFIC / MINREX) seeking to monitor trade relations with the Dominican Republic and to ensure exploitation of advantages offered in this free trade agreement. Prioritized aspects include analysis of the black bean quota granted to Nicaragua and of possibilities to extend said quota.

# **Administration of Importation Quotas**

This period, IICA/EPAD supported the Ministry of Agriculture and Forestry (MAGFOR) in analyzing the pertinence of granting quotas to national industry for soybean, pork, rice and yellow corn products. The four quotas were authorized after these analyses demonstrated that imports would not threaten national production. On the contrary, deficits in internal production justified quotas, especially to prevent price increases for consumers.

# Study of the Agricultural Export Supply

The EPAD Project represented MAGFOR as the technical counterpart for coordination with the main office of the Japanese International Cooperation Agency (JICA) in order to organize and contracting and implementation of

an agricultural export promotion study. In this process, terms of reference were prepared, and meetings were held with JICA's Agriculture and Forestry Policy Department. IICA participated as a member of the technical team.

#### Administration of Exonerations in the Fiscal Fairness Law

A technical team was formed to design procedures and review requirements for the administration of certificates for tariff and tax exonerations for prime materials, intermediate goods and capital goods used in agricultural production. Lists proposed by the private sector were studied and situations were assessed in order to ensure that the agricultural sector enjoys the benefits stipulated in the law.

The problem faced by the Association of Private Sugarcane Producers of the West (Asociación de Productores Privados de Caña de Azúcar de Occidente - APRICO) was analyzed. The Fiscal Fairness Law requires payment of 2% income tax (IR) withholding on sugarcane transactions on the Agricultural Exchange, instead of the 1% withholding applicable to all other primary agricultural goods. The project supported APRICO in procedures before the Ministry of the Treasury and Public Credit, seeking to reclassify sugarcane as a primary agricultural good and to ensure 1% IR withholding on respective exchange transactions.

# Strengthening of Organization, Planning and Monitoring Capacities

The EPAD Project provided technical assistance to MAGFOR for the preparation of annual operating plans (AOPs) for 2004 and 2005, especially with respect to aspects corresponding to the Ministry's trade policy. Policies were prepared based on SECEP matrices and the Productive Rural Development Strategy. In addition, a preliminary proposal regarding activities and qualitative and quantitative performance indicators for the next five-year period is currently being reviewed by SECEP. Advances were also made in the programming of sectoral investment for the 2004-2005 cycle.

With respect to organization, EPAD helped to design the structure and functions of the MAGFOR Trade Department. In late August, a proposal was presented on reorganization of the Trade Department and of the market intelligence system. Activities implemented included the preparation of terms of reference for the proposal regarding installation of the market intelligence system and for the use of EU funds in the area of trade and food safety and health measures.

The project supported the methodological organization of ENDRP, as well as consultations in the territories. Activities included the organization of seminars, facilitation of events, and systematization of results from each territory.

# Technical Assistance for MAGFOR Participation in the Sectoral Sub-table

MAGFOR and the Ministry of Industry and Commerce (MIFIC) installed the Productive Rural Development sub-table. Consultants contracted by EPAD supported the preparation of a plan for its establishment, organizational structure and bylaws. They also supported the sub-table's installation and the creation of an Inter-institutional Coordinating Committee (MAGFOR, FUNICA, SREC, CE.) The situation of this entity was covered in a report presented at the Third Forum for the Coordination of Cooperation.

#### SEED POLICY

An extensive work plan was developed in order to strengthen and promote the private sector seed industry, to ensure institution building within the MAGFOR Seed Department, and to strengthen legal and technical assistance with respect to Living Modified Organisms (LMOs).

Consulting activities in this area were framed around four fundamental lines of work: Central American Customs Union, Institutional Regulatory Framework, Seed Policies and Strategy, and Biotechnology.

These activities helped to disseminate and further emphasize the use of certified seed, as well as to ensure private sector seed industry participation in negotiations on the Central American Customs Union, preparing joint strategies with similar entities throughout the Central American region.

The following were among the main achievements: a) strengthening and functioning of the National Seed Council, having contributed to the strategic plan for the council's operations; b) preparation of a proposal for seed policies, in order to integrate them into agricultural sector policies defined by MAGFOR; c) initiation of the process to create national capacities in the area of biotechnology.

# **Central American Customs Union**

Efforts focused on assisting private sector representatives and MAGFOR's chief negotiator on seed topics and phytosanitary measures to be

standardized at the Central American level. This included direct participation in three rounds of negotiations: XXIV meeting in Guatemala, XXV meeting in Costa Rica and XXVI meeting in El Salvador. Before each round, an average of eight work sessions were held (24 in total) in order to: review pending agreements and work agendas; unify criteria on topics to be discussed; and consult with and lobby the private sector seed industry, private sector representatives, MAGFOR negotiators and personnel from MIFIC's Integration Department.

The private sector was kept informed about advances in the process. With the Secretariat of Central American Economic Integration, two workshops were planned and implemented to report on progress in Customs Union negotiations regarding agricultural input groups and phytosanitary measures.

# **Institutional Regulatory Framework**

With participation by the private sector seed industry in five workshops (Granada, Estelí, Jinotega, León and Managua), a proposal was prepared for reforms to the bylaws of the Seed Production and Commerce Law. Observations gathered at the workshops were incorporated, and a final document was prepared and presented to the National Seed Council, which analyzed, debated and ratified the reforms. Through approval of Technical Determination No. 01-2004, the document was submitted to the Minister of Agriculture and Forestry for corresponding analysis. The proposal was then presented to MAGFOR, and the Ministry's legal advisers were tasked with carrying out procedures to introduce the proposed reforms to the Secretariat of Legal Affairs of the Presidency.

The strategy defined with CONASEM and MAGFOR consisted of reforming Seed Law regulations in order to correct and eliminate obstacles against the registration of cultivars, based on advances in Central American Customs Union negotiations, and then to initiate a project to formulate the new Seed Law in order to incorporate said agreements and dispositions. To date, however, formulation of the new Seed Law remains pending: approval of reforms to current regulations is still in process, and Customs Union negotiations regarding the topic of seed remain to be concluded.

The National Seed Council received support for the process of approving the registration of six new cultivars authorized by the Seed Department for commercialization in Nicaragua. These cultivars include the following:

CROP	CULTIVAR	CHARACTERISTICS	COMPANY
Corn	C-805	Hybrid	Monsanto

	Tlayoly	Free Polinization	INTA
Sorghum	SR-360	Hybrid	PROSEMILLAS
•	Oro Blanco	Hybrid	PROSEMILLAS
	Diamante	Hybrid	PROSEMILLAS
	Marfil	Hybrid	Monsanto

# Support for Dissemination of the Use of Certified Seed

Support was provided for the planning, organization and implementation of the Fourth National Seed Conference, Fourth National Seed Fair and First Western Fair of Small and Medium Businesses, held in the city of León on May 28-29, 2004. This support consisted of the formation of a Municipal Organizing Committee; implementation of 22 preparatory work meetings; preparation of the contents and design of 8,000 brochures, 1,000 posters and 500 folders for pertinent materials; set-up of the fair; development of the work plan to be followed; reproduction of materials for 34 technical conferences (250,000 sheets); preparation of the event program; visits to commercial, industrial and seed sector businesses to request resources; logistical support; video recording; etc. In addition, a final evaluative report was prepared and presented to the National Seed Council.

A consultancy was executed on seed marketing. In this respect, an international consultant held a three-day workshop for private sector producers, marketers and technicians, offering training on marketing techniques, studies and plans, and providing inputs and tools for the preparation of marketing programs.

The project participated in the XIX Pan-American Seed Seminar held in Asunción, Paraguay. For this event, two seed producers (and PROVIA Foundation members) were selected. They established contacts with Latin American colleagues and learned about advances in technology, agribusiness, protection of varieties, and biotechnology. In addition, contact was established with representatives of seven companies in Paraguay, Argentina, Brazil and Venezuela to assess the possibility of obtaining promising varieties or lines of soy and sesame, in order to carry out experimental evaluations in Nicaragua and determine their levels of adaptability to local conditions.

In September, a regional seminar was held in Matagalpa for the exchange of experiences between national producers of certified seed. This event made it possible to learn about the experiences of producers from the northern region with respect to bean, corn and potato crops. Similarly, problems

related to seed production and commercialization, the Pond-for-Pound Program, and particularity in the specific market for bean and potato seed were discussed.

# Biotechnology

MAGFOR authorities have stated that the Ministry lacks the human, technical and financial capacities to implement the Cartagena Protocol and aspects of biotechnology and bio-safety. In this sense, EPAD responded to a MAGFOR request that project seed specialists represent the Ministry in international events to negotiate Nicaragua's position with respect to the Cartagena Protocol.

Upon request by the Minister of Agriculture and Forestry, negotiations were initiated with USDA and Argentina's Secretariat of Agriculture and Fishery about the signing of an Agreement of Understanding to comply with the Cartagena Protocol with respect to the trade of LMO commodities from countries not participating in the protocol. Terms of reference were prepared and activities scheduled to implement a consultancy to define Nicaragua's position (with respect to agriculture) for negotiations of the Cartagena Protocol. A document was prepared for DGPSA/MAGFOR, reflecting the immediate commitments that Nicaragua must meet pursuant to that stipulated in the protocol.

With respect to this same issue, international experts Dr. Amanda Galvez of Mexico and Jorge Madriz of Costa Rica were contracted to provide technical assistance on the following topics:

- Definition of Nicaragua's position (with respect to agriculture) for negotiations of the Cartagena Protocol;
- Creation of national capacities for the introduction of biotechnologies;
- Raising of capacities among CONARGEN members in LMO risk analysis;
- Procedures for laboratory inspection, use, contents and liberation of LMOs.

A total of 27 workshops were planned and implemented, as detailed below:

- ▼ Three workshops to analyze implication for and obligations of Nicaragua under the Cartagena Protocol, and to define the country's position with respect to agricultural aspects.
- One workshop on the analysis, risk assessment and detection of LMOs.
- Four workshops to present negotiation results from the Cartagena Protocol Conference of Parties, as well as obligations derived from these negotiations.
- ▼ Five workshops to disseminate the LMO Regulatory Framework in Nicaragua.
- Three workshops to develop national capacities for the introduction of biotechnologies.
- Four workshops to raise national capacities with respect to: the Cartagena Protocol, obligations derived from agreements made at the Conference of Parties, the national regulatory framework, introduction of biotechnologies and Costa Rican experiences in biotechnology and bio-safety, and access to and use of information on the internet about events in the United States and Argentina.
- Three workshops oriented toward professors and researchers at UNAN-León and the National Agrarian University (UNA) about the topics of biotechnology and bio-safety.
- ▼ Three workshops to promote knowledge about first import risk assessment obligations and the documentation that accompanies cross-border LMO movements.
- One workshop with MARENA personnel to present the proposal for a Central American regulatory framework covering Living Modified Organisms for agricultural uses.

Through other support provided to MAGFOR, terms of reference were prepared for a project to implement the Cartagena Protocol and comply with agreements made at the Conference of Parties. In addition, an analysis was carried out of established national capacities for LMO detection.

# Strengthening of the Private Sector – PROVIA Foundation

Within the framework of efforts to strengthen Nicaragua's agriculture and forestry sector, from October 2003 to September 2004 the PROVIA Foundation and EPAD Project worked closely with the new PROVIA Board of Directors to formalize organizational aspects, achieve legal standing, and promote the foundation's growth. PROVIA currently has 248 members.

Through a consultancy contracted as part of EPAD's technical assistance, in July PROVIA's strategic lines were defined and approved. These propose that the foundation advance in its basic capacities and organization in order to promote producer association —with a new strategy of productive and social coordination— according to their respective branches, activities or products and covering the concept of productive chains and agglomerates. The purpose is to promote Nicaragua's productive transformation, so as to exploit new tendencies in international markets.

During this period, three work groups were reactivated and, together with the coordinators of each area of IICA-EPAD-USAID, implemented the following actions:

# Sheep / Goat Sector

The foundation decided to promote support for the production, commercialization and industrialization of sheep meat. EPAD supported the creation of the association PROVICA. It provided technical assistance for the implementation of local market studies, based on which initiatives were initiated. A 450-manzana project was started on "San Francisco State" Farm, dedicated to the breeding of Dorcet and Dorpet sheep which, because of their genetic characteristics, provide greater weight and greater yield per animal.

A conference was held on sheep production at the EXPICA Livestock Fair. A total of 85 people participated. Three other conferences are being developed on different farms within the agro-tourism circuit in Granada. Here, the purpose is to publicize sheep and goat production and its benefits while simultaneously creating synergy between two sectors: agro-tourism and sheep / goat production.

The association is taking steps toward the purchase of the rendering plant owned by the León Ranchers' Association (Asociación de Ganaderos de León – ASOGAL) with 60% financing from IDR and the rest remaining in ASOGAL's hands. The goal is for the rendering plant to slaughter different species: cattle, pigs, sheep and goats.

# **Agro-tourism Sector**

The project provided technical support for the PROVIA Foundation's agrotourism initiative, resulting in creation of the first agro-tourism circuit. This was established in a zone covering the city of Granada, islets of Lake Nicaragua and productive farms along slopes of Mombacho Volcano that descend to the lakeshore.

The management of agro-tourism sectoral policy coordinated three studies covering: farm infrastructures, the assessment of existing tourism services in this zone, and an analysis of visitor profiles and trends in demand. These three efforts provided very useful information, based upon which the feasibility study was formulated.

EPAD provide technical support to PROVIA for the organization and management of AGROTUR, an agro-tourism company. These efforts included a proposal for the administrative organization of the circuit and the development of a strategic vision toward marketing. This first circuit will serve as a model for expansion in this sector.

As part of the support for PROVIA producers involved in the development of this first agro-tourism circuit, a trip to Costa Rica was financed for representatives of the five farms taking part in the program. As attractive models to emulate, trip participants visited sites along the network of COOPERNA cooperatives, which also offer agro-tourism services.

Marketing instruments generated to support this activity included participation in the GRANADA 2004 Livestock Fair and in the Second National Tourism Convention (also in Granada.) AGROTUR was present at both events, presenting expositions, videos and brochures.

# **Forestry Sector**

Efforts were made in the process, coordinated by the PROVIA Forestry Commission, to support the private forestry sector by forging agreements on topics prioritized in the PROVIA Foundation work plan. The objective has been to improve private sector communication with government entities on strategic topics that lead to completion of the installation of the new legal framework for forestry.

In this sense, the EPAD Project contracted a consultant / specialist to support the PROVIA Foundation's leadership with respect in this area. This goal was achieved through the following:

- Implementation of a program to disseminate the contents and scope of the Forestry Law in main timber zones of the country. A total of four workshops were held, with broad participation, in Chinandega, Puerto Cabezas, Managua and Ocotal.
- rechnical assistance for private sector participation in the process to prepare regulations regarding forestry incentives stipulated in the Forestry Sector Conservation, Promotion and Sustainable Development Law. The Forestry Law was regulated in general. However, because the law calls for the preparation of several specific regulations (particularly a chapter on incentives), it was also necessary to target this regulation process in an exercise seeking consultation and consensus (similar to the exercise carried out for the law in general.) This would ensure that opportunities provided in the incentives chapter consider the interests of the private sector and new investments. As the governing body over this sector, MAGFOR has been made responsible for the officialization of the chapter on incentives.
- Preparation of an assessment of and proposal for forestry sector taxation, within the framework of the new Fiscal Fairness Law. This study / proposal seeks to promote an adequate assessment of the impact of forestry incentives on the increase and future return of forestry coverage in the country, ensuring that the private sector has clear elements with which to make proposals to the government, leading to improvements in the sector's investment environment.
- Support for the private sector in the timely presentation of and participation in technical proposals and work plans covering the forestry sector. Such was the case of the proposal regarding the methodology to be used in determining the price of resources.
- organization and financing of internships for public functionaries and private sector representatives in Guatemala to study the application of that country's forestry incentives framework. An exchange was organized and coordinated between Nicaragua functionaries (from the Customs Department, Revenues Department [Dirección General de Ingresos DGI] and Ministry of the Treasury), PROVIA member producers, and Guatemalan functionaries and producers involved in the implementation of that country's Forestry Incentives Program (PINFOR). The objective was for Nicaraguan participants to learn about Guatemalan experiences and, as a result, to build support among national fiscal entities for the incentives process in Nicaragua.

# V. Road Rehabilitation

## Roads Rehabilitated and Territories Intervened

The physical goal of the EPAD road component consisted originally of the rehabilitation of 103 kilometers of tertiary rural road in municipalities and communities within the departments of Chontales, Boaco, Matagalpa and Jinotega. The component's final results included rehabilitation of 106.5 kilometers of road, achieved due to field surveys' better precision in determining the length of stretches and to new demands that arose among beneficiaries (accompanied by their provision of resources and other contributions.)

The component's main objective was to ensure free transit, and thus to help to improve the well-being of rural families within project areas of influence. Road activities facilitate access to goods and services as well as the generation of local employment during periods of physical construction and upon implementation of road maintenance plans (which are executed with community participation.)

Department	Sub-	Initial	Kilometers
Municipality	Project	Goal	Rehabilitated
Chontales -Villa Sandino	Villa Sandino - La Campana	46.00	46.00
Boaco - Camoapa	La Calamidad - San Pablo	26.00	26.00
	Tesorero - Buena Vista	15.00	15.20
Matagalpa - Darío	Apompuá - La China	6	6.30
	Palo Verde - Sabana Verde	4	6.00
Jinotega - La Concordia	Valle Colón - Namanjí	6	7.00
	Total	103	106.50

## **Work Method**

The work method is based on the formation of solid community and municipal organization, through Central Road Rehabilitation Committees made up of representatives from beneficiary communities. These committees form a network that facilitates direct communication and coordination with the respective communities. Committees are responsible

for the organization of work brigades, including brigade chiefs, warehouse managers and overseers.

Initially, EPAD expected a machinery / manual labor rate of 60% to 40%. However, because of climatic conditions, the project implementation period and quality requirements, this rate changed to 70% / 30%.

# **Work Strategies**

The strategy planned for the project involved the linear or consecutive execution of different sub-projects according to the approved technical proposal, thereby reducing the costs of machinery and maintaining goals with respect to community labor.

After analyzing the lengths of stretches to be rehabilitated, climatic conditions (heavy rainfall), gradient levels and high plasticity or mud/clay rates, the project was forced to identify new strategies. The final strategy was agreed upon by CARE-Nicaragua, IDR and IICA. Basically, the strategy consisted of working simultaneously on several stretches of road.

# **Beneficiary Population**

The project surpassed its goal for road rehabilitation by 125%. It also surpassed the goal in terms of beneficiary communities by 180%.

# Population Benefited according to Project Indicators

Indicator	Goal	Total	%
# of families benefiting from farm-to-market access	1,686.00	2102.00	125.00%
# of communities benefiting from access to markets	25.00	45.00	180.00%
# of male heads of household receiving incomes	630.00	572.00	88.25%
# of female heads of household receiving incomes	195.00	78.00	40.00%
% of women participating in activities	15%	12%	12.00%
Road Committees with maintenance plans	6.00	15.00	250.00%

SOURCE: PREPARED BY THE MONITORING AND EVALUATION SYSTEM

# **Project Costs**

With respect to technical aspects, this project has been a significant experience. For the first time, CARE implemented the project with supervision strictly following standards, designs and quality controls. The methodology contributed significantly to roadwork

quality, to investment security, and to the durability of the road laid. It is interesting to note that the esthetics and profiles of each stretch have been appraised:

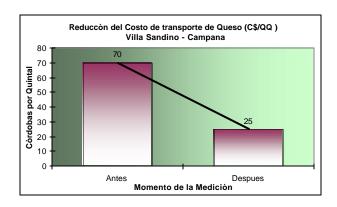
**Lengths and Costs of Rehabilitated Roads** 

MUNICIPALITY	SUB-PROJECT	KM	Costs C\$/Km.
Villa Sandino	San Francisco – Campana	46.00	7,451.42
Camoapa	Calamidad - San Pablo	26.00	7,058.14
Camoapa	Tesorero - Buena Vista	15.20	9,197.21
Darío	China - Candelaria	6.30	9,465.58
Darío	Palos Verdes - Sabana Verde	6.00	6,374.11
La Concordia	Valle Colón – Namanjí	7.00	8,706.13
TOTAL		106.50	7,745.50

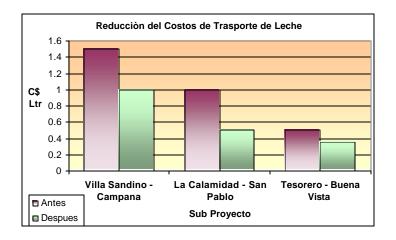
The average cost per rehabilitated kilometer was between 65 and 70% of market costs. It is clear that this methodology makes significant cost reductions possible. At the same time, it transfers resources to rural populations via incomes from community labor.

# **Project Impact**

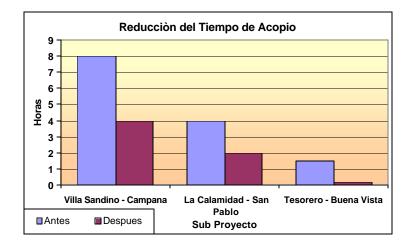
The cost of transporting cheese from Campana (Chontales Department) to the Iván Montenegro Market in Managua dropped from C\$ 0.70 per pound before road rehabilitation to C\$ 0.25 per pound after rehabilitation. In other words, stabilization of the transport system resulted in a cost reduction of 64%.



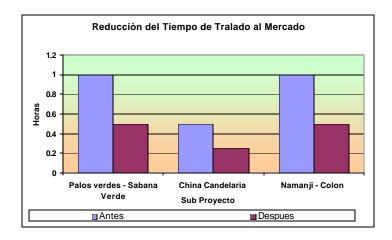
The other relevant market is that of fresh milk, involving five dairy processing plants that send most of their production to El Salvador and Honduras. One of the relevant factors for competitiveness is the cost of collecting prime materials. Before road rehabilitation, storage of one liter of milk cost C\$ 1.50; afterwards the same storage cost dropped to C\$ 1.00 per liter.



Another important element with respect to the improved competitiveness of these companies' is the quality of prime materials. Among external factors to be considered is the time required to transport milk from the farm to the plant for refrigeration. Before road rehabilitation, this process took five hours, resulting in serious problems of acidity and in higher processing costs. After rehabilitation, farm-to-plant transport was reduced to three hours, leading to reductions in milk acidity and to greater yields per gallon for cheese production (an increase from 0.80 gallons/pound to 0.95 gallons/pound.)



Transport rates did not show any changes. The impacts on transport and commercialization costs are related to reductions in the time required to reach communities.



# VI. Training, Events and Communications

#### **EVENTS AND TRAINING**

Events and training activities played a fundamental role in implementation of the IICA/EPAD/USAID Project from October 2003 to September 2004. They made it possible to expand the vision of producers and to reinforce technical assistance actions in different agribusiness, policy and exportation platform areas.

A total of 9,734 beneficiaries participated in 155 events and training sessions imparted by national and international specialists, who shared their knowledge on topics such as the markets for dairy products, plantain and onion; the Bioterrorism Law; biotechnology; CAFTA's impact on agriculture; specialty coffees; the demands of international markets; etc.

The impact of events and training was highlighted in international-quality events of great significance for producers' associations. Such events included the Latin American Conference on Quality, Electronic Coffee Auction, Fifth International Expo / Convention of Exportable Products, and the RAMACAFE International Coffee Conference, among others.

A high percentage of the events and training sessions were held in different municipalities and departments of the country, including: the North and South Atlantic Autonomous Regions (RAAN and RAAS, respectively), Estelí, León, Chinandega, Chontales, Matagalpa, Ocotal, Jinotega, Rivas and Managua.

Through events and training sessions, 7,222 men and 2,512 women gained access to information, were introduced to better crop techniques, diversified their production efforts, and extended their knowledge and know-how to compete in national and international markets.

In order to raise the quality of these activities, international specialists were invited from Honduras, Costa Rica, Peru, Chile, the United States, Colombia, Argentina, Ireland and Mexico.

Summary of EPAD Events and Training Sessions						
		Oct. 2003 to	Sept. 2004			
#	Area	Name of Event	Site		# Partic	
				Men	Women	Total
64	Sectoral Policy	Bioterrorism Law, Forestry Law and its application mechan-isms, CAFTA opportunities, agro- tourism opportunities, seed conferences, biotechnology and bio-safety, etc.	Managua, Granada, León, Chinandega, Ocotal, Puerto Cabezas, etc.	2633	1349	3982
10	Exportation Platforms	Business plan, labelling, packaging, safety and quality, international markets, etc.	Managua	179	98	277
53	Farming Agribusiness	Coffee diversification; onion, tomato, cacao, plantain cultivation; plasticulture; bio- digesters, seedling production, etc.	Managua, Matagalpa, Estelí , Rivas, Jinotega, etc.	3312	704	4016
28	Livestock Agribusiness	Calf reproduction and development, dry-season feeding, homeopathic medicines, artificial insemination, courses on dairy product preparation, organic meat, etc.		1098	361	1459
155 events and training sessions GRAND TOTAL 7,222 2,512 9,7				9,734		

#### COMMUNICATION

Between January 2003 and August 2004, twelve issues of **AGRONOTICIAS** Bulletin and 84 weekly electronic **IICANoticias** bulletins were prepared and distributed. Both publications are considered instruments of enormous impact for the dissemination of efforts carried out by the project.

*IICANoticias* reaches more than 4,500 subscribers, many of whom represent national public institutions, associations, cooperatives, universities and other entities linked to the agricultural sector. Other subscribers include individual farmers, students, etc.

Through electronic media located within the central IICA offices, *IICANoticias* is distributed to all IICA offices established in each of the countries of the Americas, as well as to partner organizations and OAS offices.

It also must be noted that the project received significant attention from national media. The Nicaraguan newspapers *La Prensa, Nuevo Diario, Bolsa de Noticias* and *Trinchera de Noticias* published 227 pertinent reports, and significant coverage was provided on national television and radio news programs.

Most importantly, all of these stories and reports focused positively on IICA/EPAD/USAID results.